

**1. Project background.** Since the first discussions began in Wisconsin's Fox River in 1981, enthusiasm around water quality trading has grown based on a long list of potential ecological and economic benefits for regulators, producers and communities. USEPA and its state agency counterparts see huge potential in trading, as it requires the rigorous quantification of environmental impacts, and helps drive "green" versus "gray" infrastructure development among regulated point sources. For example, a wastewater treatment plant might offset its phosphorus impacts through the restoration of streamside buffers on agricultural land, rather than through increased filtration at the facility. This potential re-targeting of point source compliance spending on farm, ranch and forest lands with non-point source impacts remains a key goal of water quality regulators around the country.

USDA and its services see huge potential in improving conservation participation among producers through this same re-targeting of water quality compliance dollars. Dollars once spent on concrete and steel at facilities could instead flow to restoration projects on agricultural land, with corresponding landowner incentive payments for voluntary participation. Further, restoration projects boost rural economies through supply and labor purchases, and generally improve community acceptance of conservation practices. In other words, water quality trading could help USDA realize the long-elusive "triple bottom line" of social, economic and environmental benefits from conservation.

Communities facing increasingly rigorous water quality requirements focus on water quality trading programs' potential to save millions in compliance spending. Environmental organizations see significant ecological benefits from trading, as restoration projects offer multiple and long-lasting ecosystem benefits. In Oregon, water quality trading to offset one utility's temperature impacts has resulted in the restoration of more than 35 miles of streamside vegetation. Another 30 miles will be required to offset a second utility's "thermal load" over the next few years. In addition to substantially better ecological results, this early trading in Oregon has driven \$20 million in new conservation funding to restore streamside shade, while saving rate payers at these two facilities more than \$70 million dollars.

The potential benefits of trading at scale, as illustrated by these examples from Oregon, are hugely significant for water quality, local communities, and producers. Point sources around the country are facing increasingly tough new restrictions on nutrients and temperature. These new restrictions will require massive investment in water quality improvements. Federal and state agencies have tried to keep pace with the evolving need for more ecologically effective and cost efficient compliance solutions. In 2003, USEPA issued its Water Quality Trading Policy, followed by other related documents in 2004 and 2007 to help permit writers and watershed groups evaluate point-source to non-point source trading. USDA developed preliminary guidelines in 2011 to help producers better engage in water quality trading, and is now working on updates to improve trading program implementation. Oregon, Idaho, Washington and 5 other state water quality agencies have each established some general form of water quality guidance.

Non-profit groups around the country have been among the most active in this arena, developing market tools, assessment approaches and credit measurement techniques. In fact,

funded by USEPA and NRCS, Willamette Partnership successfully completed its *Counting on the Environment* process in 2009 that created the fully functional infrastructure and regulatory agreements necessary to support trading of multiple ecosystem services in Oregon's Willamette River basin – one of the only fully operational systems in the country.

Still, trading programs throughout the U.S. require significant work to achieve a scale that will make a difference for water quality. Since USEPA issued its 2003 Water Quality Trading Policy, 72 programs have been initiated in the U.S. Of those, only 14 have agricultural producers actively delivering credits that point sources can use for permit compliance under the Clean Water Act (E. Branosky, pers. Comm., 2012). While momentum is clearly building in certain areas, such as the Pacific Northwest and the Ohio River basin, now is the time for more specific and significant encouragement and engagement from state water quality agencies on trading, with active participation of USEPA and USDA.

***Project Need.*** The nutrient and temperature issues impacting our nation's freshwater ecosystems demand long-term and large-scale solutions. Water quality trading programs offer an innovative way to incentivize non-point source improvements; however, for these programs to scale regionally and nationally, increased confidence among buyers (regulated utilities) and sellers (agricultural producers) of water quality offsets is needed. Stakeholders across the country recognize the need for common, state agency-led guidance for water quality trading programs. Creating this clarity will enable agencies to actively promote water quality trading as a compliance alternative with established guidance, as opposed to reacting to individual project and program proposals. ***With real water quality transactions now happening in the Pacific Northwest and elsewhere, the need for federal and state alignment on regulatory guidance has never been more critical.***

To date, only eight states (ID, WA, OR, WI, CO, MI, OH, MN) have any water quality trading guidance at all, with none cooperating across state lines to ensure consistency. Early guidance on water quality trading must now be expanded to include lessons learned from more recent activity, with more states encouraged to participate. Just as the 2003 USEPA guidance broadened acceptance of trading programs and prompted early activity, the next jump in participation will come from state water quality agencies taking active leadership roles and generating joint regional agreements. Common, consistent guidance will give potential buyers confidence to work with producers, potential sellers certainty on what will count as a credit, and local watershed groups the ability to reduce start-up time and costs by easing transfer of innovation among states and regions.

Under this proposal, state agencies that regulate surface-water quality in the Pacific Northwest (Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, Washington Department of Ecology, and USEPA) will come together to create a common and consistent set of procedures and guidelines that ensure quality and transparency in trading programs – a “Joint Regional Water Quality Trading Agreement.” This effort will mark a critical shift from agencies reacting to individual project and program proposals, to agencies actively promoting water quality trading as a compliance alternative with clear guidance.

**Dedicated Federal funding will enable state water quality agency staff to focus attention and coordinate efforts to generate the Joint Regional Agreement needed to support credible and transparent trading at scale.** Dedicated funding will also enable state agencies to participate in national discussions currently underway to standardize water quality trading elements across the United States. USEPA Region 10 staff will be actively engaged in this project, but no NRCS CIG funds will be used to support USEPA staff involvement.

***Likelihood of Project Success.*** State agencies, in collaboration with USEPA in its oversight role, will lead most of the components of this project, with the Willamette Partnership providing support in coordination, facilitation, and document management (see Figure 1 on page 7). The Willamette Partnership’s facilitation role was critical during the *Counting on the Environment* process that successfully established a “General Crediting Protocol in Oregon” in 2009, accepted by 25 state and federal regulatory agencies and interest groups. The Willamette Partnership has a long history of working constructively with regulatory agencies and over the last five years has helped lay the foundation for Oregon’s active water quality trading program by developing credible standards and protocols and building broad consensus and support from public and private partners.

The Pacific Northwest is arguably the region of the country best-positioned to successfully develop a multi-state Joint Regional Agreement. Oregon, Washington, and Idaho state water quality agencies are committed project partners and have experience working together on other complex, multi-state water quality issues, such as “total maximum daily load” development for the Columbia and Snake Rivers, Columbia River total dissolved gas criteria, *USEPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards*, etc. With cooperation from all three state regulatory agencies assured, the likelihood of project success is very high and the timing is ideal.

**2. Project objectives.** The primary objective of this effort is to secure multi-state consensus and USEPA support for a Joint Regional Agreement that will include: multi-state agency guidance; general restoration project and BMP quality standards; credit tracking procedures; and accounting methods for “credits” that can be used in water quality trading for nutrients (nitrogen and phosphorus) and temperature in Oregon, Washington, and Idaho. All three of these states and USEPA have some form of guidance or framework in place to inform water quality trading, providing a strong foundation from which to develop a Joint Regional Agreement. This project will foster needed alignment and consistency among trading programs while maintaining essential state flexibility to address state-specific parameters.

In addition to standardizing program elements in the three-state area, partners will coordinate with trading programs under development in the Ohio River Valley, California, and Colorado in an effort to develop consistent, multi-state program elements that drive cooperation and shared infrastructure – including a shared credit registration system. Close multi-state coordination and use of common infrastructure will improve the likelihood that water quality trading programs will expand throughout the United States. Consistency will also increase

transparency and credibility of programs, minimize start up and transaction costs over time, and grow confidence in trading as an acceptable compliance alternative. The project will create a model for multi-state coordination, essential as agencies address water quality issues at major basin scales such as the Chesapeake, Mississippi, Columbia, Puget Sound and Colorado.

The Joint Regional Agreement will follow a three-tiered structure that establishes consistent agency authorities and processes in Tiers One and Two, but allows individual state flexibility for the specific mechanics of trading in Tier Three:

- **Tier One: Multi-State Agency Guidance:** Legal authorities, guiding principles, minimum program requirements, and appropriateness of trades in TMDL and “pre-TMDL” scenarios based on USEPA’s 2003 Water Quality Trading Policy, but updated based on lessons learned and new information garnered from current trading activity.
- **Tier Two: Standard Operating Procedures:** Common processes and mechanics shared across trading programs including standard crediting procedures and common infrastructure, as well as standard language, process steps, and considerations to be included in TMDLs and NPDES permits to support trading. Standard operating procedures will also explore considerations for baseline and other eligibility requirements, project quality guidelines, credit verification, monitoring and registration/reporting.
- **Tier Three: State Specific Addenda:** Elements of trading that are unique to the ecological, economic, and socio-political needs of each state. State-specific appendices will include unique baseline procedures, credit calculation methodologies, discounting and ratio factors, minimum quality standards for allowable conservation practices, etc.

Challenges with water quality trading in the Chesapeake Bay and with the Climate Registry for carbon illustrate the need for regulatory processes that are state-centric, but regionally coordinated. Done correctly, a Joint Regional Agreement among the three Pacific Northwest states and USEPA could quickly spur adoption of similar agreements in other regions and states – a desired outcome of this project.

#### TIER ONE - Regional Guidance and Agency Authorities

- **Legal basis and guiding principles for trading.** USEPA’s 2003 Water Quality Trading Policy was completed before many of the active point-to-nonpoint- source trading programs were created. Additionally, guidance documents in Oregon, Washington, and Idaho need updating based on recent permits and trading activity. Tier One Regional Guidance should be the same across all states.
- **Frame conditions and general considerations to encourage water quality improvements in “pre-TMDL” areas.** Most of the 14 trading programs in place now around the United States are based on compliance with TMDL allocations. More specific guidance is needed for the development of trading mechanisms in pre-TMDL watersheds, to comply with water quality-based effluent limits in NPDES permits or to keep water bodies from becoming impaired. Project partners will establish a process for defining baseline conditions and providing certainty to permittees (credit purchasers) and producers (credit

sellers), including assurances that credits will be acknowledged when TMDLs or other regulatory documents are developed.

- **Outline minimum requirements for a water quality trading program.** A minimum set of conditions are needed for states to design and implement successful water quality trading programs. Project partners will develop a common set of basic requirements and a checklist to guide state agencies in the development and approval of trading proposals. This element will help ensure programs are consistent with federal laws, are transparent and credible, and will accomplish the promised water quality improvements.

#### TIER TWO – Standard Operating Procedures for Trading

- **Develop standard crediting procedures and common infrastructure.** Many benefits provided by Joint Regional Guidance will stem from the certainty and ease-of-use inherent in a standardized set of procedures and common definitions for water quality trading. The Willamette Partnership has developed templates for many of these procedures and they are being applied in watersheds across the Pacific Northwest. Standardization will also make agency evaluation and oversight of trading programs easier.
- **Create standard language, process steps, and considerations to be included in TMDLs and NPDES permits to support trading.** Experience in the Pacific Northwest illustrates that clear authorization for trading in TMDL documents and standard NPDES permit language creates stronger legal footing for trading and improves implementation. Standard Operating Procedures will provide clear language and steps for TMDL developers and permit writers to consider when establishing TMDLs or approving trading programs. Current USEPA guidance for permit writers does not provide the level of specificity needed for clear, consistent regulatory agency operations throughout the region. Standard Operating Procedures will apply region-wide (Idaho, Oregon and Washington) with acceptance and formal agreement by the three states and USEPA.

TIER THREE – State-Specific Addenda. Water quality trading programs are shaped by the ecological, economic, and socio-political needs of their given state or watershed, which makes complete standardization difficult. The Joint Regional Agreement will provide for State-Specific Addenda to accommodate these differences, which will also make it easier for other states and regions to adopt the Agreement, or use it as a model for a separate regional agreement.

- **Define modifications to the Standard Operating Procedure needed for each state.** Idaho, Oregon, and Washington will analyze their individual programs and statutory requirements and define protocols that address the specifics of water quality trading for each state.
- **Define credit calculation methodologies and minimum quality standards for conservation practices.** The methods for quantifying water quality improvements are becoming increasingly standardized. To the extent possible, states will try to adapt the same tools to quantify nutrient and temperature reductions, but individual states may need to determine their own crediting procedures for issues such as establishing baseline conditions.

**Discussion of Innovation.** State agencies and USEPA Region 10 are facing requests from multiple parties and permittees seeking guidance on water quality trading. Similar requests are occurring in USEPA Regions 8 and 9. Without clear and consistent guidance, programs will operate in isolation with different rules and with reduced overall transparency, increasing risk and uncertainty for regulators and permittees, and minimizing opportunities to implement programs at a watershed scale.

Clear, multi-state agency guidance is essential for water quality trading programs to operate, but only 8 states have any current guidance at all. The agencies implementing the Clean Water Act also wrestle with a tension between a desire for nationally consistent standards and the reality that watersheds need to be managed locally. This project provides the common state agency guidance, standard operating procedures, and framework to customize trading elements to each state. The deliverables from this project will enable states to quickly adopt or adapt shared trading program elements, enabling state water quality agencies and stakeholders to focus on the challenges unique to their locale and expediting the ability of producers to participate in trading programs.

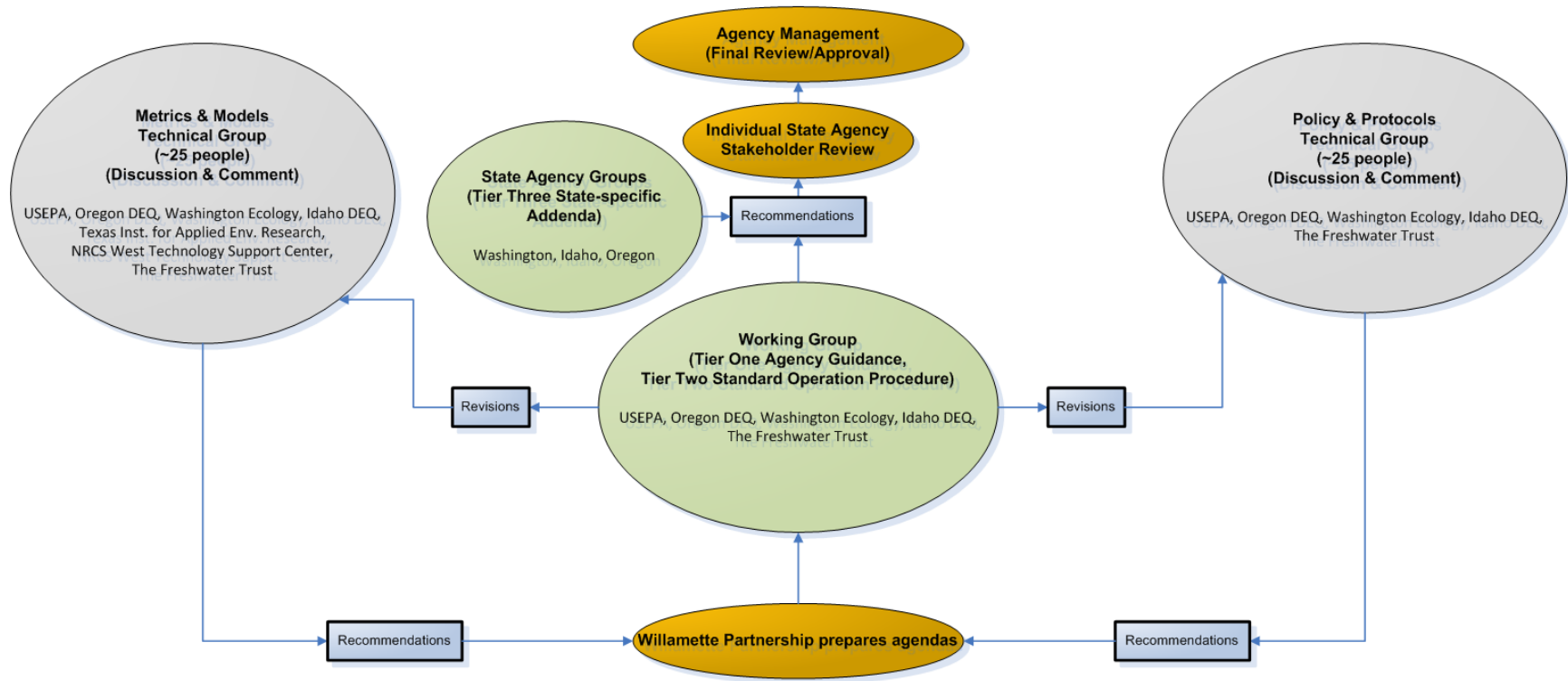
**3. Project methods.** The Willamette Partnership will build from its 2008/09 *Counting on the Environment* process to help USEPA Region 10 and the three state water quality agencies develop a Joint Regional Agreement. That process successfully achieved multi-stakeholder agreements on science, policy, and crediting protocols, across water and biodiversity markets. The Willamette Partnership will work with the agencies to conduct the needed stakeholder processes with producers, utilities, environmental groups, and others to complete multi-state agency guidance (See Fig. 1). Throughout the project, project partners will actively participate in national conversations on the state agency guidance and common tools needed to support water quality trading. The methodology for each element of the project is described below:

Task 1. Review 8 existing state water quality trading policies and convene agencies

The Willamette Partnership will review the 8 existing state trading policies (ID, WA, OR, WI, CO, MI, OH, MN) and USEPA guidance to identify common elements, inconsistencies, and gaps. The review will form the basis of a two-day kick-off workshop with USEPA Region 10 and the three state agencies to begin sorting trading program elements into Tier One Multi-State Agency Guidance, Tier Two Standard Operating Procedures, and Tier Three State-Specific Addenda.

The workshop will include presentations from each of the agencies on current regulatory authorities and operating procedures and gaps in existing tools. The agencies will form subgroups focusing on topics needing further development such as credit quantification, baselines, and developing legal authorities.

**Figure 1: Joint Regional Water Quality Trading Agreement: Process Design**



**Willamette Partnership will help facilitate each group discussion and coordinate across groups**

Task 2. Draft Tier One Multi-State Agency Guidance

Based on the action items from the kick-off workshop, each state agency will develop a list of additional state agency guidance and authorities needed to support trading and a set of comments on each state’s existing guidance. The list and comments will be used to create an outline of the Tier One Multi-State Agency Guidance with a series of options for standardizing that guidance. The Willamette Partnership will convene staff leads from each agency through a series of work sessions to develop a complete draft of the Multi-State Agency Guidance.

The State Guidance will include minimum requirements for a trading program, such as compliance with anti-degradation and anti-backsliding provisions and general programmatic elements that every trading program will need to address (i.e. trading areas, baselines, trading ratios for things like delivery, risk, and environmental benefit, assurances, verification, monitoring, credit registration, credit custody tracking, remediation strategies etc.).

### Task 3. Draft Tier Two Standard Operating Procedures

Each state agency will assign a staff lead who will coordinate participation from their agency in two subgroups needed to develop Standard Operating Procedures for policies/permitting processes and technical/modeling. Those subgroups will complete the following subtasks.

#### *Policy/Permitting*

- Generate a comprehensive list of **acceptable trading scenarios** (for example, intraplant trading, intramunicipal trading, single buyer, multi-party closed market, etc.) based on pollutant(s) to be traded, size and hydrodynamics of the trading area, number and type of sources involved, pre-existing regulatory framework, stakeholder preferences, etc.
- Review federal and state guidance documents and available case law to create a **checklist of minimum requirements** for consideration.
- Determine **priority conservation practices** that give certainty of “high-quality” and effective restoration for use in compliance-grade offset credits.
- Develop **detailed criteria for viable trading program proposals**, including designated trading partners, a description of how proposed trades can be quantified for both point and non-point sources, and mechanisms/protocols for establishing reasonable assurances that proposed actions identified in the trading will be implemented and water quality improvements realized.
- Analyze and compile essential, **well-defined permit conditions**, including acceptable trades, minimum requirements for trading agreements, recordkeeping, monitoring, third party verification, serialized registration, and reporting requirements.
- Identify and develop guidance for the **required elements of permit evaluation** reports.
- Review and develop a standard method for assessing compliance with and **enforcement of trading proposals** in permits. Review Idaho, Oregon, and Washington’s existing enforcement regulations to determine if additional compliance and enforcement tools need to be developed to specifically address trading.

#### *Technical/Modeling*

- Determine how to establish nonpoint source “**baselines**”, including specific guidance in areas that do not yet have established TMDLs or will be completing a TMDL in the future.
- Define the **unit of trade**, or “credit,” that represents the amount of pollutant reduced over a specified **time period** by a particular action, and establish how these credits can be used.
- Agree to **credit calculation** tools/metrics, including adaptation across the states. If states wish to use specific quantification tools, those will be included in State-Specific Addenda.
- As part of this project, **Nutrient Tracking Tool (NTT)** will be considered as one credit calculation tool, and will be uploaded with crop management, soils, and climate data for Washington and Idaho by the Texas Institute for Applied Environmental Research and in



coordination with NRCS' West Technology Center. Agencies will work with local partners to identify sites to calibrate the outputs for NTT.

- Develop **trading ratios** which account for factors like *delivery* of pollutants into a stream, *equivalency* across different forms of pollutants, *uncertainty* tied to measurement and other forms of risk, and *retirement* for environmental benefits.
- Review current methods and develop new methods and procedures if needed that ensure compliance with NPDES permit requirements, including **testing protocols and monitoring**. Determine if additional methods should be developed specific to trading compliance.

#### Task 4. Draft Tier Three State-Specific Addenda

As agency staff and stakeholders identify issues specific to each state, they will be incorporated into State-Specific Addenda. These Addenda will help maintain consistency with standard operating procedures but will also maximize state flexibility to manage and control their respective programs. The bulk of the state-specific addenda are likely to include the following:

- Develop **minimum design criteria** for installing high quality conservation practices. These criteria will vary depending on actions, but will contain the specific project detail and standards needed to use those practices to generate credits.
- Identify criteria for "**trading areas**" and priorities within these areas.
- Identify criteria for **third party entities in each state to perform credit verification**. Third party verification of credits is critical to ensure that offsets used in compliance-based trading meet the highest ecological and regulatory standards.
- Review and select a **legitimate credit registry** to record and track trades in each state.
- Clearly define state policies on total project loss, remediation, and **force majeure**.

#### Task 5. Local, regional and national stakeholder engagement

Stakeholder engagement is critical for this project's success. Farm, ranch and forest interests, environmental groups, local governments, and utilities must support the three state agencies and USEPA in their effort to develop a Joint Regional Agreement. Managing communication and engagement among these many disparate constituents promises to be a massive effort, with primary responsibility falling on The Freshwater Trust (a project partner) during the project period. The Freshwater Trust will convene these stakeholders as required to maintain alignment on project outcomes. The Freshwater Trust's engagement here will also result in early supply and demand analysis for water quality trading across the three states, and set the stage for active trading activity immediately upon execution of the Joint Regional Agreement.

The intent of the Joint Regional Agreement is to kick-start a viable regional water quality trading marketplace, and provide a model other states and regions may adopt. Project partners will work with neighboring USEPA regions and states that have already expressed interest in basing their trading programs on tools developed in the Pacific Northwest. In addition to neighboring states and regions, project partners are already coordinating with trading programs being developed in the Ohio River Valley to maximize consistency and the use of common infrastructure where possible. In addition, USEPA Region 10 will share key developments and draft products with USEPA's Office of Water to support a consistent regional approach to implementing water quality trading.

Project partners strongly encourage and will actively participate in a “Water Quality Market Network” established by USDA with other CIG grantees, state agencies, and USEPA as a venue to share experience, coordinate program development, evaluate program components and results, and establish consistent tracking, reporting and verification parameters.

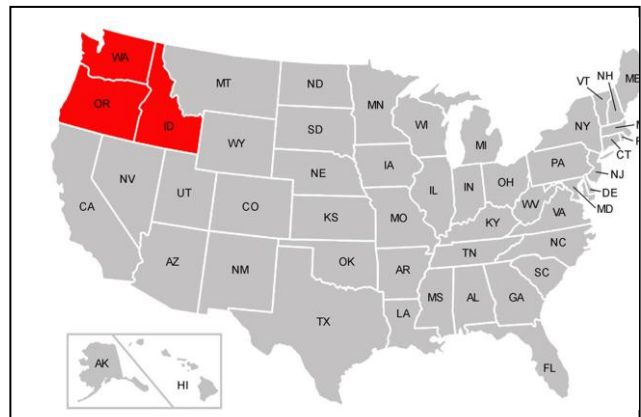
#### Task 6. Finalize Joint Regional Agreement and Reporting to NRCS

As a draft Joint Regional Agreement is completed, state water quality agencies, with support from USEPA Region 10, will make decisions together about the public processes needed to formalize the Agreement as multi-state agency guidance. This process may include one to two rounds of public comment and response. It may include outreach to stakeholders like wastewater utilities, environmental groups, producer groups, and tribes.

The Willamette Partnership will use its *Counting on the Environment* process to facilitate an agreement. That process includes in-depth convening to ensure the right individuals and organizations have a voice in the Joint Regional Agreement, structured communication throughout so that nothing in the Agreement is a surprise, and structuring of an agreement document that provides both flexibility and consistency. The Joint Regional Agreement may take several forms (e.g. formal agency guidance or a Memorandum of Agreement between agencies). The final form will be determined by state agencies and USEPA.

#### **4. Location and size of project or project area:**

This project will span Oregon, Washington and Idaho. This project will provide a blueprint for other states seeking to standardize regional water quality trading guidance.



#### **5. Producer participation:**

At least 4 EQIP-eligible producers will be directly involved in commenting on and shaping the state-specific appendices – a significant commitment. More significantly, this project will establish the regional framework needed for water quality trading programs to scale across the Pacific Northwest, with enormous benefits for EQIP-eligible producers. In Oregon alone, over \$20,000,000 has already been invested in restoration projects that generate water quality offsets, and another \$13,000,000 in credit transactions are planned over the next few years. Over 200 landowners, many of whom are EQIP-eligible, have or will soon participate in water quality trading programs by allowing conservation actions on their land, with attractive incentive payments in exchange. Though no CIG funds will be used to implement credit-generating projects or to provide payments to landowners for this project, a Joint Regional Agreement on Water Quality Trading offers significant long-term benefits for EQIP-eligible producers, as a new revenue stream that encourages conservation practices on farms, forests and ranches.

## 6. Project action plan and timeline

DESCRIPTION	Start	End	MILESTONES
<b>Task 1. Review 8 trading policies &amp; Convene Stakeholders</b>			
Review of 8 state trading policies and USEPA policy Final process design and agendas	9/12	3/13	Convening Report
<b>Task 2. Draft Tier One Multi-State Agency Guidance</b>			
Develop review criteria for trading proposals Establish shared authorities and objectives Define general trading provisions	4/13	11/13	Draft Guidance Document
<b>Task 3. Draft Tier Two Standard Operating Procedure</b>			
Create shared policies (e.g. on trading ratios)			Draft Standard Operating Procedures Protocol documents
Update/validate nutrient & shade calculators for regional use Build permitting templates Define roles and governance	6/13	6/14	Nutrient and shade calculators for OR,WA,ID Standard permit language Draft roles and responsibilities
<b>Task 4. Draft Tier Three State-specific Addenda</b>			
Draft addenda for each state	12/13	12/14	3 Draft Addenda for OR, WA, ID
<b>Task 5. Stakeholder Engagement</b>			
Coordinate with local stakeholders, other CIG grantees, USDA, USEPA, and cooperating states	9/12	9/14	Local stakeholder convening, participation in national calls, comments incorporated from other states
<b>Task 6. Finalize Joint Regional Agreement &amp; Report to NRCS</b>			
Secure final Joint Regional Agreement Develop handbook so other states can "sign on" to Agreement Complete Final Report to NRCS	12/14	9/15	Joint Regional Agreement endorsed by WA, OR, and ID state agencies Handbook for other states on steps needed to join the Agreement Final Report to NRCS

**7. Project management.** The project overall will use the *Counting on the Environment* process to coordinate science and policy work across state lines and stakeholder interests. A working group of state water quality agency leads, USEPA Region 10, and The Freshwater Trust will review and discuss the recommendations made from technical groups focusing on the science and measurement of water quality improvements and the policy and protocol issues needed to support trading. The Willamette Partnership will actively facilitate these groups through a series of in-person and telephone meetings over the course of the project period.

State water quality agencies, USEPA Region 10, and The Freshwater Trust staff will play central roles in delivering this project. Key personnel expected to participate include:

Bobby Cochran, Executive Director, Willamette Partnership, will be the lead facilitator and responsible for the overall project. Bobby has led complex inter-agency processes around water quality trading and other environmental markets since 2007. Those processes have led to agency rule changes, shifts in standard operating procedures, and other forms of coordinated action. Bobby has nearly 10 years of experience negotiating collaborative policy at the intersection of science, policy, and economics. He has a PhD from Portland State specializing in public policy and negotiation, and an MA in Conflict Resolution.

Ranei Nomura, Water Quality Trading Project Manager, Oregon Dept. of Environmental Quality. Ranei has 20 years of experience at OR DEQ in water quality permit policy, program, and rule development. For the past five years, as the agency's alternative compliance policy analyst, Ranei has been responsible for developing state water quality trading guidance and reviewing and approving trading program proposals. Ranei also participated in the Willamette Partnership's *Counting on the Environment* process and is part of the Klamath Tracking and Accounting Program interagency workgroup. She has a BA in Biology from Reed College in Portland, Oregon.

Michael McIntyre, Surface Water Program Manager, Idaho Dept. of Environmental Quality. Michael manages the Surface Water Programs for the State of Idaho Department of Environmental Quality. His staff develops policy direction for monitoring waterbodies, assessing waterbodies, developing TMDLs, and TMDL implementation plans. Michael's program has recently updated the Idaho Water Quality Pollutant Trading Guidance.

Helen Bresler, Water Quality Program, Washington Dept. of Ecology. Helen manages the Nonpoint and TMDL Programs for the Washington Department of Ecology. Her staff develops policy direction for both programs and oversees the work to ensure it meets the requirements of the Clean Water Act and state water quality standards. Helen is the author of Washington's Water Quality Trading/Offset Framework.

Claire Schary, Water Quality Trading Coordinator, USEPA 10. With 22 years of experience at USEPA, Claire's time in the Acid Rain Division helped establish the nation's first cap and trade program for sulfur dioxide emissions. She has been Region 10's Water Quality Trading Coordinator for the last 15 years and is considered a national expert on water quality trading.

She led USEPA’s team developing Idaho’s Lower Boise River Water Quality Trading Framework and USEPA’s Water Quality Trading Assessment Handbook. She also represented Region 10 in the national workgroup that created USEPA’s Water Quality Trading Policy and the Water Quality Trading Toolkit for Permit Writers. She has a BA in Economics from Carleton College in Northfield, MN and an MBA from Cornell University in Ithaca, NY.

David Primozich, Senior Director of Ecosystem Services, The Freshwater Trust. Mr. Primozich has more than a decade of experience engaging stakeholders to deliver informed decisions about the management and use of natural resources. Prior to joining The Freshwater Trust, he helped form and served as Executive Director of the Willamette Partnership, where he led efforts to shape emerging quantification science and infrastructure around ecosystem service payment systems to achieve more effective conservation results. At The Freshwater Trust, David has lead efforts to help NPDES permit holders apply rigorous new quality standards to temperature trading programs. In December 2011, David helped the City of Medford secure a wastewater permit that included a trading program that will yield roughly 30 miles of restored streamside shade, implemented entirely by a third party – a major milestone in the development of environmental markets. David has earned undergraduate degrees in Applied Science Agriculture and Anthropology and a master’s degree in Applied Anthropology.

**8. Project deliverables/products.** The Willamette Partnership and project partners will supply the required documents outlined in the RFP (e.g. semi-annual reports, justification of payment, etc.) and will participate in at least one NRCS sponsored event during the grant period. In addition to the required deliverables outlined in the RFP, the project will provide the following deliverables/products:

Deliverables	
<b><i>Task 1. Review 8 trading policies &amp; Convene Stakeholders</i></b>	
1	Summary report of gaps in existing 8 state trading policies and USEPA policy
2	Convening report with process design, group membership, and process issues
<b><i>Task 2. Draft Tier One Multi-State Agency Guidance</i></b>	
1	Kick-off workshop agenda and action items
2	Working group agendas and action items
3	Draft Guidance Document
<b><i>Task 3. Draft Tier Two Standard Operating Procedure</i></b>	
1	Shade calculator updated and validated for OR, WA, ID
2	Nutrient calculator updated and validated for OR, WA, ID
3	Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities
<b><i>Task 4. Draft Tier Three State-specific Addenda</i></b>	
1	OR Draft Addenda
2	ID Draft Addenda
3	WA Draft Addenda

<b>Task 5. Stakeholder Engagement</b>	
1	Engage local stakeholders/alignment on project outcome (Joint Regional Agreement)
2	Comments received from USDA, USEPA, and other states via national calls
3	Versions of Tier One and Tier Two documents that are applicable to other states
<b>Task 6. Finalize Joint Regional Agreement &amp; Report to NRCS</b>	
1	Final versions of Multi-State Agency Guidance, Standard Operating Procedures, and State-specific addenda
2	Joint Regional Agreement supported by USEPA and state water quality agencies
3	Handbook for other states on steps needed to join the Agreement
4	Final Report to NRCS

**9. Benefits or results expected and transferability.** In general, project partners are interested in a single outcome from this work - more effective ways to maximize total pollution-reduction/water quality improvements achieved from dollars spent. The work completed under this proposal will set the stage to accelerate restoration activities on farm, ranch and forest land far beyond what would be possible otherwise.

This project centers on the Pacific Northwest, but partners will participate with other CIG grantees to ensure the Joint Regional Agreement can be adopted by other states and regions. Particular focus will be placed on reaching out to other western states in USEPA Regions 6, 8, and 9. Already, work is beginning with California’s North Coast Regional Water Quality Control Board in the Klamath River Basin to integrate water quality markets with the Klamath Tracking and Accounting Program. Under The Freshwater Trust’s current CIG, there is funding to convene a national network of regional market developers. Project partners will use the network to transfer the results of this grant and receive information about the innovations of other CIG grants. In turn, that network offers NRCS and others the capacity to more easily transfer market innovations to watersheds and communities.

The benefits of credible and transparent trading programs in general are clear for four stakeholders categories: 1) regulators gain new tools to incentivize restoration actions that improve water quality, and a standard method to quantify and verify outcomes from dollars spent and actions taken; 2) farmers, foresters, and ranchers with degraded riparian land gain access to new funding sources that enable them to take action more quickly and with higher quality standards; 3) regulated point sources get access to a compliance solution that is generally (often substantially) less expensive than technological solutions, and offers numerous secondary benefits (miles of stream banks restored and business for local contractors and suppliers); 4) the public is assured that steps are being taken to improve water quality conditions and that actions taken to offset ongoing impact are real, verified, tracked, and performing to a high quality standard over time.

**10. Project evaluation.** The Willamette Partnership will submit semi-annual progress reports and quarterly financial reports to NRCS. Prior to program launch, state agencies, with support

from the Willamette Partnership and The Freshwater Trust, will fully evaluate the legal, technical, and policy feasibility of joint action on various portions of the Joint Regional Agreement. The Partnership will keep records of action items and meeting summaries to ensure there is a record of discussion to help other states and regions consider adopting or adapting the Joint Regional Agreement.

Mid-way through the project, the state agencies and Willamette Partnership will assess current process design, status of deliverables, and progress toward objectives to see if any changes are needed.

Technical feasibility of transfer for the Joint Regional Agreement will be assessed based on the time taken to develop and reach agreement on the different shared agency policies and tools. This measure translates directly into cost estimates needed for other states.

## D. Additional Information

### 1. References

- Idaho Department of Environmental Quality. Water Quality Pollutant Trading Website. <http://www.deq.idaho.gov/water-quality/surface-water/pollutant-trading.aspx>.
- Kling, C., & Secchi, S. (2011). *Natural Resources Credit Trading Reference*. United States Department of Agriculture Natural Resources Conservation Service. Retrieved from [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1045650.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045650.pdf).
- Oregon Department of Environmental Quality. Water Quality Trading Website. <http://www.deq.state.or.us/wq/trading/trading.htm>
- Selman, M., Greenhalgh, S., Branosky, E., Jones C., & Guiling J. (2009). *Water Quality Trading Programs: An International Overview*. WRI Issue Brief, Water Quality Trading, No 1. World Resources Institute, Washington, DC.
- United States Environmental Protection Agency. (2003). *Final Water Quality Trading Policy*. Retrieved from <http://water.epa.gov/type/watersheds/trading/finalpolicy2003.cfm>.
- United States Environmental Protection Agency. (2004). *Water Quality Trading Assessment Handbook: Can Water Quality Trading Advance Your Watershed's Goal?* Washington, DC: National Service Center for Environmental Publications. EPA 841-B-04-001. Retrieved from <http://www.epa.gov/owow/watershed/trading/handbook/docs/national-wqt-handbook-2004.pdf>.
- United States Environmental Protection Agency. (2007). *Water Quality Trading Toolkit for Permit Writers*. Washington, DC: National Service Center for Environmental Publications. EPA 833-R-07-004. Retrieved from [http://water.epa.gov/type/watersheds/trading/upload/2004\\_11\\_08\\_watershed\\_trading\\_handbook\\_national-wqt-handbook-2004.pdf](http://water.epa.gov/type/watersheds/trading/upload/2004_11_08_watershed_trading_handbook_national-wqt-handbook-2004.pdf).
- Washington Department of Ecology. (2010). *Draft Washington Water Quality Trading/ Offset Framework*. WDEQ 10-10-064. Olympia, WA. Retrieved from [http://www.ecy.wa.gov/programs/wq/swqs/WQTradingGuidance\\_1010064.pdf](http://www.ecy.wa.gov/programs/wq/swqs/WQTradingGuidance_1010064.pdf).
- Willamette Partnership. (2009). *Ecosystem Credit Accounting: Pilot General Crediting Protocol: Willamette Basin v. 1.1*. Hillsboro, OR. Retrieved from <http://willamettepartnership.org/General%20Crediting%20Protocol%201.1.pdf>.
- Willamette Partnership. (2009). *Joint Statement of Agreement for an Ecosystem Credit Accounting System*. Hillsboro, OR. Retrieved from



<http://willamettepartnership.org/ongoing-projects-and-activities/nrcs-conservation-innovations-grant-1/Joint%20Agreement%20all%20signatures.pdf>